HSTL Hazardous Substances Technical Liasions

OFFICE OF RESEARCH AND DEVELOPMENT HAZARDOUS SUBSTANCES TECHNICAL LIAISON REGION 9 NEWSLETTER
Summer 2005, Edition 32

Welcome to another ORD technical liaison newsletter! We're chock full of conference dates, new documents and other good ideas on how to assist you with hazardous waste site remediation. Please take a moment to scroll down to see this quarter's topics.

New Opportunities: In order to be effective and efficient at site cleanups, ORD invests quite a bit of its annual budget into waste related research. This research will assist those in the field in the coming years, but also provides a great basis for today's technical support. We know that no one has a crystal ball, right? That includes ORD! They rely on input from others to help guide them in what research to conduct. That is the basis for a number of new workgroups being formed in the Regions. They are called "Regional Research Advisory Groups" and cover a number of topics, including Sediments, Groundwater, Site Characterization and Methods, Engineering, Containment and Soil Treatment and Human Health Risk Assessment. The groups are now looking for Regional members: if interested, please call me and I'll put you in touch with the right person. It's your chance to help direct ORD's research.

Speaking of ORD tech support, I am the person who can help you with making these connections. If you have document review or aerial photography needs, cleanup technology questions or other hazardous waste-related technical needs at your site, please contact me and I'll do my best to get you that ORD technical support. This past quarter, I interviewed a number of recipients of ORD tech support and compiled their responses into a report that I call the "ORD Technical Support Feedback Report for Region 9". The results were encouraging! For more, read below in the "LOCAL NEWS" section. Keep the requests coming and thanks for reading!

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ORD Hazardous Substances Technical Liaison
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Summer 2005 Edition of the Region 9 HSTL Newsletter:

NATIONAL NEWS

New Tools and Technologies

USGS Patents the Multifunction Bedrock-Aquifer Transportable Testing Tool

(From Tech Direct newsletter of July 1, 2005)

The U.S. Geological Survey designed, constructed, and patented a Multifunction Bedrock-Aquifer Transportable Testing Tool (BAT3). BAT3 is designed to conduct tests that measure the permeability of fractures, and collect water samples for geochemical analyses from short intervals of boreholes in fractured-rock aquifers. The BAT3 is unique when compared to

conventional packer systems: it has the ability to conduct multiple types of hydraulic tests, geochemical sampling, and tracer tests; to monitor the operational integrity of tests; and to conduct real-time data analysis and visualization. USGS scientists and their partners have used the BAT3 at several sites throughout the eastern United States, including sites with contaminated ground water, in order to characterize fractured rock aquifers.

View information at http://toxics.usgs.gov/highlights/bat3/ .

New Tools Improve Assessment of Contaminated Ground Water and Surface Water Interaction
(From Tech News and Trends, May 2005)

The Space and Naval Warfare Systems and and Naval Facilities Engineering Service Center (NFESC) are working with Cornell University to develop techniques for assessing contaminated ground-water discharge into coastal environments. Two of these tools - the Trident® probe and the UltraSeep® meter - help to identify potential areas of ground-water impingement into surface water and to quantify flow rates and contaminant levels. Recent field trials of these tools show they provide rapid assessment of coastal contamination migration and can lead to selection of more effective and less costly remedial alternatives than those selected through conventional characterization techniques.

One of the first coastal sites where the integrated system was deployed on a full-scale basis is Naval Air Station (NAS) North Island Site 9, CA. Bordering San Diego Bay, the site was a marshland that was filled during the 1930s with dredge material and subsequently served as a chemical waste disposal site. Shoreline monitoring wells and ground-water modeling suggested that a trichloroethene (TCE) plume was migrating toward but not discharging into the Bay.

For the full article, see: http://clu-in.org/download/newsltrs/tnandt0505.pdf

Contributed by Navy staff D. Bart Chadwick, Ph.D. (bart.chadwick@navy.mil), Stacey Curtis, (stacey.curtis@navy.mil) and Amy Hawkins, NFESC (amy.hawkins@navy.mil).

EPA-German Partnership Shares Brownfields Tools and Technologies
(From NRMRL News - May 12, 2005)

Brownfields redevelopment is one of EPA's most notable success stories. Brownfields, so-called to distinguish them from suburban "greenfields," are abandoned properties whose cleanup and redevelopment may be complicated by the presence of hazardous substances, pollutants, or contaminants. The brownfields concept has attracted international interest. In 1990, the German Federal Ministry of Education and Research entered into a partnership with EPA to study the cleanup of contaminated sites in both countries. By 2000, research activities expanded to include tools and techniques for the revitalization of brownfields sites. One noteworthy product of this partnership is a decision-support tool called Sustainable Management Approaches and Revitalization Tools-electronic (SMARTe). This web-based tool can be used to analyze alternative strategies for individual brownfields properties. SMARTe integrates four key

elements: economic viability (revitalization costs and benefits, funding sources); environmental risk management (state and federal regulations, characterization/remediation/monitoring technologies); social acceptance (public involvement, environmental justice); and revitalization strategy (vision, stakeholder involvement, revitalization plan) . SMARTe is currently available for beta-testing at http://www.smarte.org.

SMARTe is a key instrument in the effort to transform brownfields sites into attractive and viable community properties. It combines the power of the Internet with analysis and presentation tools that can be used interactively to build decision models for solving revitalization problems. When completed, it will include tools for:

- Identification of land use, revitalization and risk management options
- Environmental modeling (inventory, source release, fate and transport)
- Human health and ecological risk assessment
- Financing, including private and public sector options (grants, loans)
- Social analysis, including tools to translate non-market costs (quality of life, sense of place) into market values
- Ecological analysis (use of a brownfields site in place of diminishing greenspace, use of eco-friendly construction materials, preservation of a wetland, and similar factors)
- Economic analysis, which includes market costs and benefits (insurance, tax incentives, the cost of money, return on investment and other elements)
- Sustainability analysis, which includes loss of non-renewable resources, use of renewable resources, restoration of natural systems and similar factors

SMARTe uses the technical framework of probablistic analysis since decisions are nearly always made in the face of uncertainty and the probabilistic method allows uncertainties to be specified, evaluated and managed. SMARTe is being peer-reviewed and quality controlled at every step in its development, and its universal computer coding makes it software-independent and open to any user. It is also designed to be flexible enough to incorporate new tools and technologies as they become available.

Since 2002, a series of workshops in the U.S. and Germany have been held to gather information for SMARTe tools and techniques. Participants typically include domestic and international stakeholders from the private sector, state and federal agencies, and the university community. Interactive CDs of the workshop proceedings may be ordered free from the National Center for Environmental Publications at http://www.epa.gov/ncepihom/ordering.htm, or by calling 1-800-490-9198. The two titles now available are: "U.S.- German Bilateral Working Group: Economic Tools for Sustainable Brownfields Development " (EPA/600/C-03/001a) and "Environmental Risk Assessment/Communication Tools for Revitalization of Potentially Contaminated Sites " (EPA/600/C-04/099). Further information on the U.S.-German Bilateral Working Group can be found at http://www.bilateral-wg.org/. For interesting information on EPA's brownfields program and its accomplishments, go to http://www.epa.gov/brownfields/about.htm.

Contact: Patricia Schultz, Office of Public Affairs, 513-569-7966, or e-mail to: schultz.patricia@epa.gov.

Vapor Intrusion.....Out of Sight but Not Out of Mind

(From NRMRL News - July 15, 2005)

Volatile organic compounds (VOCs) in contaminated soils and ground water can emit vapors, which can migrate through subsurface soils and enter the indoor environment of overlying buildings. Building depressurization may cause these vapors to be drawn into buildings through holes and cracks in the foundation. Depressurization can be caused by a combination of wind and stack effects (where movement of warmer air out of the top of a building pulls cooler air into the bottom), along with heating and mechanical ventilation. In extreme cases, the vapors can be present in buildings at levels that may pose near-term safety hazards, such as the risk of explosion. Typically, however, vapor concentrations are present at lower concentration levels, to which long-term exposure may pose increased risk of chronic health effects.

Considering the vast number of current and former industrial, commercial, and waste processing facilities in the U.S. capable of causing ground water and soil contamination, contaminant exposure via vapor intrusion can pose a significant risk to the occupants of affected buildings. EPA has developed guidance to help assess vapor intrusion at sites regulated by RCRA and Superfund, where the majority of human health risk is associated with exposure to halogenated organic compounds (see the November 2002 Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils). To help identify, characterize, and mitigate risks associated with vapor intrusion, EPA is currently evaluating vapor intrusion pathways and factors that can affect vapor intrusion modeling accuracy. Some of these efforts are listed below:

- Knowing the extent of ground water contamination can be helpful in assessing associated vapor intrusion risks, but conventional ground water sampling methods provide the least reliable assessment of the vertical profile of contamination. EPA researchers are investigating the use of vertical profiling of VOC concentrations at contaminated sites to assess risks associated with vapor intrusion into nearby buildings and residences. At the Raymark Superfund site in Stratford, CT, researchers are comparing data from discrete multi-level samplers and passive diffusion bags against ground water samples taken using traditional sampling devices and techniques. Results will aid federal and state agencies in establishing more effective sampling programs.

- Direct push soil-gas sampling (where hammer-like pressure pushes the cutting and sampling tube downward) shows great promise and can be performed at a fraction of the cost of traditional drilled, soil-gas sampling. It can also be applied closer to a potentially affected building and thus reduce concern over data applicability. One drawback of this sampling approach is the lack of information on the potential bias (due to loss of volatile organic compounds) associated with the direct push method. EPA researchers are assessing the potential bias to provide specific recommendations on soil-gas sampling to support vapor intrusion investigations.

- EPA recommends indoor air and sub-slab gas sampling in and under buildings where elevated levels of soil-gas and ground water contamination are anticipated. To support the guidance and improve site-characterization and data interpretation, EPA researchers are developing a protocol

for sub-slab gas sampling. Used in combination with indoor air, outdoor air, soil-gas and ground water sampling, sub-slab gas sampling can help to differentiate indoor and outdoor sources of VOCs from VOCs emanating from contaminated subsurface soils. This information can then be used to assess the need for sub-slab depressurization or other risk management technologies to help reduce present or potential future indoor air contamination due to vapor intrusion.

- EPA has developed a set of on-line calculators (including one based on the Johnson and Ettinger [J&E] vapor intrusion model) to assist in screening for vapor intrusion risks. The J&E model incorporates both advection (change caused by movement of fluids) and diffusion (molecules moving from an area of higher concentration to an area of lower concentration) transport mechanisms to produce an attenuation factor that accounts for ground water, soil, climatic and building properties that control the intrusion of vapors into overlying buildings. EPA's online vapor intrusion model first calculates an acceptable indoor air concentration of the selected contaminant based on a user-defined risk level; a range of target soil-gas and ground water concentrations is then produced using the J&E attenuation factor and uncertainty information for both generic and site-specific input parameters, including depth to the contaminants and moisture content in the soil. These screening results can rule out the risk of vapor intrusion at a site or indicate a need for more detailed analysis.

- EPA has been active in promoting technology transfer from its indoor air vapor intrusion program. In its national seminar series on indoor air vapor intrusion, EPA presented information and guidance on theory, background, modeling, EPA guidance, site-specific pathway assessment, risk reduction measures, and risk communication considerations. Presentations, reference materials, and an exercise demonstrating how to interpret and use the draft EPA vapor intrusion guidance are entitled "U.S. EPA Seminars on Indoor Air Vapor Intrusion," (EPA/625/C-03/004). The collection can be viewed on the web or requested, while supplies are available, by calling 1-800-490-9198.

EPA's National Risk Management Research Laboratory, along with the Agency's Office of Solid Waste and Emergency Response, sponsored a workshop to summarize vapor intrusion data in San Diego on March 14, 2005. Based on the lessons learned, and comments and data collected since publishing the draft vapor intrusion guidance in 2002, EPA plans to release its final guidance document sometime in 2005.

Contact: Patricia Schultz, Office of Public Affairs, 513-569-7966, or e-mail to: schultz.patricia@epa.gov .

ETV Program Awards ESTE Projects

(from the ETVoice newsletter of June 30, 2005)

The ETV Program recently initiated a new element of the program that will expand ETV's ability to respond quickly and directly to EPA's need for credible performance information on innovative commercial-ready technologies for addressing high-risk environmental problems. This new program element, Environmental and Sustainable Technology Evaluations (ESTE), will maintain the quality assurance, cost-sharing, and stakeholder involvement of ETV.

Technology categories for verification have been chosen by the Agency through an EPA Office of Research and Development (ORD) competitive process based on defined criteria. Four ESTE proposals will be awarded funding in fiscal year 2005. They are:

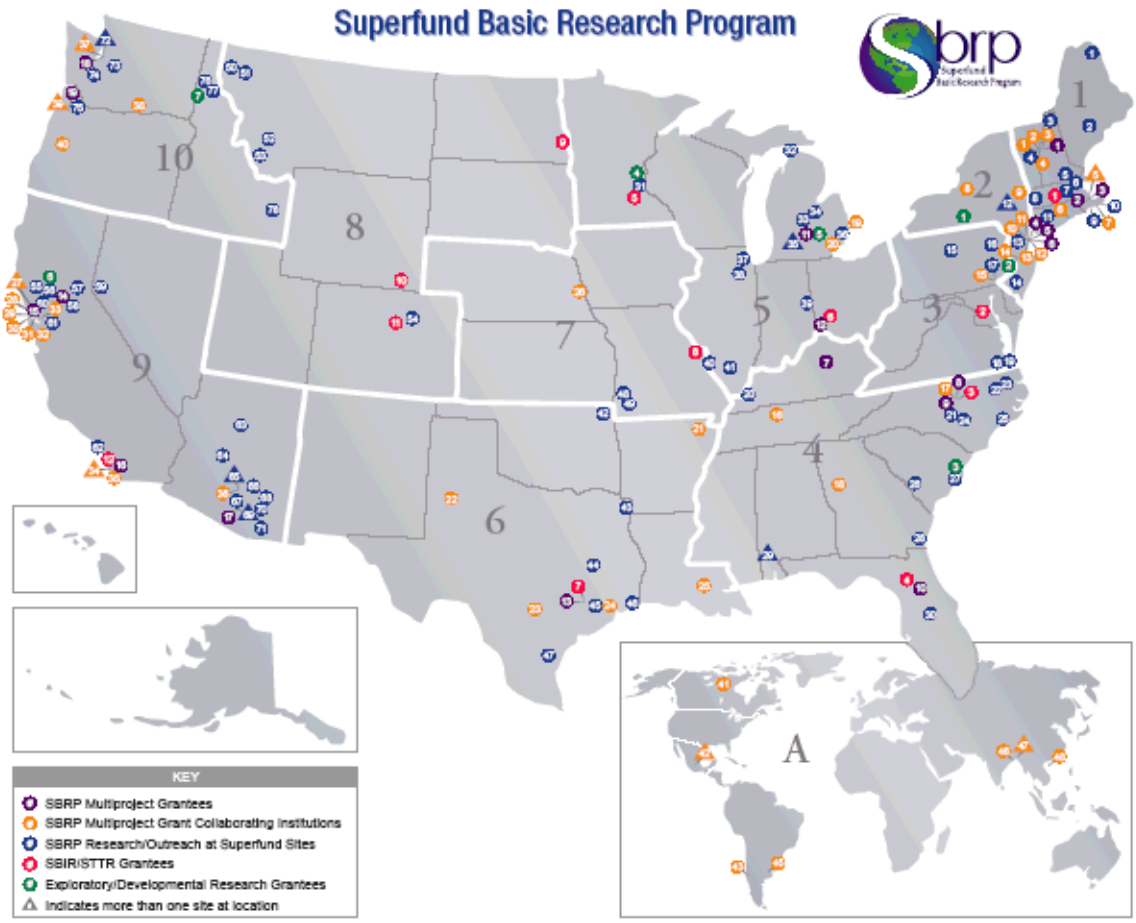
1) "Verification of Pesticide Drift Reduction Technologies: An Environmental Technology Council Project";
2) "Radiofrequency Identification (RFID) Tracking of Hazardous Wastes Across International Borders";
3) "Anaerobic Digestion of Animal Manure"; and
4) "Microbial Resistant Building Materials - Gypsum Wallboard".

A fifth ESTE proposal is still under consideration for award. Two of the awarded ESTE projects were submitted with recommendation from the EPA Environmental Technology Council (ETC). The purpose of ETC is to enhance communication and coordination of all EPA technology activities. The Council has membership from all EPA technology programs, offices, and regions and meets regularly to discuss technology solutions, technology needs, and program synergies. ETV is a member program of the Council.

For more information on ETC, please visit http://www.epa.gov/etop/forum/.

Superfund Basic Research Program (SBRP) Research Articles

The SBRP has funded research/outreach activities at over 100 hazardous waste sites. It falls under the National Institute of Environmental Health Sciences (NIEHS). This research is described in detail on their webpage (http://www-apps.niehs.nih.gov/sbrp/) and the locations are shown on the map below.



Here are the titles of the recent papers released by the SBRP since early 2004. For more details on these or past research briefs by year, go to:
http://www-apps.niehs.nih.gov/sbrp/researchbriefs/index.cfm .

1. Quantifying Enhanced *In Situ* TCE Biodegradation
2. Resistance to Heavy Metals - a Possible Tool for Phytoremediation
3. Nutrition Can Modulate PCB Toxicity
4. Using Computational Approaches to Investigate Ligand-Receptor Interactions
5. Strategies for Quantitative and Rapid Measurements of Arsenic in Water
6. Fish as Sentinels of Persistent Organic Pollutants
7. Low Levels of Arsenite May Serve as a Treatment for Melanoma
8. Investigating the Impact of Organic Mixtures on Cardiac Development of the Killifish
9. Analysis of PAHs in Air Samples Collected After the WTC Disaster and Estimation of Increase in Lifetime Cancer Risk
10. Evidence of a Molecular Link Between Inflammation and Cancer
11. Novel Applications of Microbially-Produced Surfactants
12. Arsenic Exposure via Drinking Water and Children's Intellectual Function

13. Using Laser Technology to Detect Lead in Soil
14. Clues to the Genotoxicity of Arsenic
15. Epidemiologic Research on Environmental Pollution and the Risk of Disease
16. DNA Damage Index: A New Tool for Assessing Toxic Effects of Contaminants
17. Nanosized Metals for Organic Detoxification
18. Factors Affecting the Impact of Exposures to Metals
19. Impacts of Low-Level Benzene Exposure

LOCAL NEWS

ORD Technical Support Feedback Report for Region 9

(From the report's Executive Summary)

Within EPA, most people are aware of Office of Research and Development's (ORD) traditional charter, which is to study the fate and transport of chemical compounds in our industrial based society and see how they affect human health and ecological receptors. Less known is the technical support that ORD provides to EPA staff, usually to the regional offices, that assists them in making scientifically defensible decisions. The Hazardous Substances Technical Liaison (HSTL) Program provides a link between this ORD technical expertise and the regional staff for the waste programs (Superfund, RCRA and Brownfields). This paper provides the results of a survey conducted in the spring of 2005 by the Region 9 HSTL. The survey was designed to provide feedback on the ORD technical support provided to Region 9, with the intent of reviewing the results and improving ORD technical support in the future.

In summary, the tech support was considered a valuable resource that made a difference in regional cleanup decisions. Staff often stated that the ORD tech support provided technical information that clearly assisted them in making defensible decisions at their sites. Timeliness was sometimes an issue, but never quality. One explanation for the timeliness issue could be that the Tech Support Centers (TSCs) need to put more effort into being a better customer based operation; another explanation is that more resources are needed at the TSCs.

The results reinforced the point often made that research and technical support are intimately tied together, and not only because the same ORD scientists often perform both functions. To respond effectively to the requested technical support, ORD must continue to perform research in the waste management field to be at the "top of their game".

For the complete report, please contact me and I'll email you a copy. (gill.michael@epa.gov)

DATEBOOK - UPCOMING EVENTS

This section of the newsletter is an attempt to present both EPA and non-EPA sponsored environmental technology related courses and conferences. But being a quarterly publication, it is impossible for this newsletter to always be up-to-date. For the most pertinent information on upcoming EPA courses, see http://www.trainex.org. These events are listed chronologically.

Many of the entries in these newsletters are from TIO's "TechDirect" emails (thank you Jeff Heimerman!). TechDirect prefers to concentrate mainly on new documents and the internet live events. However, they do support an area on the CLU-IN webpage where announcement of conferences and courses can be regularly posted. Sponsors can input information on their events at http://clu-in.org/courses . Likewise, the page has an area for upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

ITRC Internet Based Training

These are typically 1-2 hour online courses where the participant follows a webpage presentation, while listening on the phone. Check - http://www.itrcweb.org or http://www.clu-in.org/studio/seminar.cfm for times and registration.
NOTE: All dates/times are subject to change – check http://www.itrcweb.org for the most up-to-date information.

August 2nd – *Site Investigation and Remediation for Munitions Response Projects*
2:00 p.m. to 4:15 p.m. EASTERN Time

August 4th – *Geophysical Prove-Outs for Munitions Response Projects*
11:00 a.m. to 1:15 p.m. EASTERN Time

August 11th – *Radiation Risk Assessment: Updates and Tools*
11:00 a.m. to 1:15 p.m. EASTERN Time

Watershed Management Conference: "Managing Watersheds for Human and Natural Impacts:

Engineering, Ecological, and Economic Challenges."
July 19-22, 2005
Williamsburg, VA
http://www.asce.org/conferences/watershedmanagement2005/

NATIONAL ENVIRONMENTAL MONITORING CONFERENCE
July 25–27, 2005
Washington, DC
http://www.nemc.us/

Princeton Groundwater Pollution & Remediation Courses
July 25 - 29, 2005
Orlando, FL
info@Princeton-Groundwater.com

ITRC Training on MTBE Remediation
San Francisco, CA
August 10-12, 2005 (space available!!!)
https://weborcl8.wpi.biz/itrc/mtbe200508/regform.htm

Arsenic Removal from Drinking Water Workshop

August 16-18, 2005

Cincinnati, OH

http://www.epa.gov/ORD/NRMRL/arsenic/workshop/workshop08162005.htm

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Sediment Remediation Course: Technical Considerations for Evaluating and Implementing Dredging and Capping Remedies
August 16-18, 2005
Boston, MA
http://www.trainex.org/classdetails.cfm?courseid=413&classid=2503

Introduction to ArcGIS 9 and Environmental Applications of GIS (GIS-403)
August 17-19, 2005

San Francisco, CA

http://www.nwetc.org/gis-403_08-05_sanfrancisco.htm

Petroleum Hydrocarbons and Organic Chemicals

August 18-19, 2005

Costa Mesa, CA

http://www.ngwa.org/e/conf/0508175040.shtml

Dioxin 2005 Conference
August 21-26, 2005
Toronto, Canada
http://www.dioxin2005.org/

U.S. EPA Meeting on Pharmaceuticals in the Environment
Aug 23-25, 2005
Las Vegas, NV
http://es.epa.gov/ncer/events/ under "Events for August 2005." (no later than August 19, 2005)

American Chemical Society National Meeting (Division of Environmental Chemistry)
August 28 - September 1, 2005
Washington, DC
http://acswebcontent.acs.org/nationalmeeting/dc05/home.html

10th Annual International Symposium on the Interactions between Sediment and Water and the International Association for Sediment Water Science
August 28 - September 2, 2005
Lake Bled, Slovenia
http://www.wsc.monash.edu.au/iasws/2005symposium.htm

“Environmental Forensics: Focus on Perchlorate”
September 21-22, 2005
Santa Fe, NM
http://www.environmentalforensics.org

Groundwater Protection Council 2005 Annual Forum

September 24-28, 2005

Portland, OR

http://www.gwpc.org/meetings.htm

Princeton Remediation Course
Ocotober 10-14, 2005
Orlando, FL
http://www.princeton-groundwater.com/remediation-course.htm

Introduction to ArcHydro (Managing and Mapping Hydrologic Data with ArcGIS)
September 21-22, 2005

Davis, California

http://www.nwetc.org/training.htm

The Water Quality Standards Academy Basic Course
September 26-30, 2005
Washington, DC
http://www.epa.gov/waterscience/standards/academy.html

WASTECON 2005

September 27-29, 2005

Austin, TX

http://www.swana.org/sections/forms/

Western Regional Pollution Prevention Network (WRPPN) Annual Conference
September 28-30, 2005
Granlibakken, Tahoe City, CA
http://www.wrppn.org/Conf05/index.cfm

Low-Cost Remediation Strategies

Ocotber 3-4, 2005

Denver, CO

http://www.ngwa.org/pdf/e/course/142oct05.pdf

ConSoil 2005

October 3-7, 2005

Bordeaux, France

http://www.consoil.de/ (Warning - This website has music too!)

Fundamentals of Ground Water Geochemistry

Ocotober 4-5, 2005

Orange, CA

http://www.ngwa.org/pdf/e/course/235oct05.pdf

Estimating Times of Remediation Associated with Monitored Natural Attenuation and Contaminant Source Removal

October 5-6, 2005

New Orleans, LA

http://www.ngwa.org/pdf/e/course/157oct05.pdf

Natural Attenuation for Remediation of Contaminated Sites

October 5-7, 2005

Denver, CO

http://www.ngwa.org/pdf/e/course/148oct05.pdf

ENVIRONMENTAL EXPOSURE & HEALTH 2005
October 5-7, 2005
Atlanta, Georgia
http://www.wessex.ac.uk/conferences/2005/index.html (scroll down)

US-MEXICO BORDER ENERGY FORUM XII
October 13-14, 2005
Santa Fe, New Mexico
http://www.glo.state.tx.us/energy/border/forum/12/index.html

MODAEM and MODFLOW Using the Grounwater Modeling System

October 17-18, 2005

Columbus, OH

http://www.ngwa.org/pdf/e/course/252oct05.pdf

The 21st Annual International Conference on Soils, Sediments and Water

October 17-20, 2005

Amherst, MA

http://www.umasssoils.com/

Remediation Technologies Symposium 2005

October 19-21, 2005

Banff, Canada

http://www.remtech2005.com/

Challenges in Site Remediation: Site Characterization,Technology Screening and Testing, and Performance Monitoring

October 23-27, 2005

Chicago, IL

http://www.redoxtech.com/

EPA Tech Support Project Meeting

October 24-27, 2005

San Antonio, TX

http://www.epa.gov/tio/tsp/meetings.htm

Sediment Remediation Course: Technical Considerations for Evaluating and Implementing Dredging and Capping Remedies
October 25-27, 2005
New York, NY
http://www.trainex.org/classdetails.cfm?courseid=413&classid=2540

International Congress of Nanotechnology (ICNT)
October 31 - November 4, 2005
San Francisco, CA
http://www.ianano.org/

2005 Brownfields Conference
November 2-4, 2005
Denver, CO
http://www.brownfields2005.org/en/index.aspx

Understanding Migration, Assessment and Remediation of LNAPLs & DNAPLs

November 2-4, 2005

New Orleans, LA

http://www.ngwa.org/pdf/e/course/311nov05.pdf

2005 NGWA Remediation Conference: Site Closure and the Cost of Cleanup

November 7-8, 2005

New Orleans, LA

http://www.ngwa.org/e/conf/0511075010.shtml

AWRA 2005 Annual Conference

November 7-10, 2005

Seattle, WA

http://www.awra.org/meetings/Seattle2005/index.html

SETAC North America 26th Annual Meeting

Baltimore, MD

November 13-17 2005
http://www.setac.org/baltimore/baltimore.html

Sediment Remediation Course: Technical Considerations for Evaluating and Implementing Dredging and Capping Remedies
November 29 - December 1, 2005
Chicago, IL
http://www.trainex.org/classdetails.cfm?courseid=413&classid=2541

2005 Partners in Environmental Technology Technical Symposium & Workshop
November 29 - December 1, 2005
Washington, DC
http://www.serdp.org/symposiums/2005/Call4Abstracts/index.cfm

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Pollutec

November 29 - December 1, 2005

Paris, France

http://www.pollutec.com/?Jpto=116&KM_Session=bdbe798819317169487264l3c0b9ba1b&Lang=GB&Tpl=

2005 Superfund Basic Research Program (SBRP) Annual Meeting

January 12-13, 2006
New York City
http://www-apps.niehs.nih.gov/sbrp/events/index.cfm

AEHS 16TH ANNUAL WEST COAST CONFERENCE ON SOILS, SEDIMENTS, AND WATER

MARCH 13-16, 2006

MISSION VALLEY MARRIOTT

SAN DIEGO, CA

http://www.aehs.com/conferences/westcoast/index.htm

GLOBE 2006

March 29-31, 2006

Vancouver, Canada

http://www.globe2006.com

Joint 8th Federal Interagency Sedimentation Conference and 3rd Federal Interagency Hydrologic Modeling Conference

April 2-6, 2006

Reno, NV

http://water.usgs.gov/wicp/acwi/sos/conf/call_papers_final_10.01.04.pdf

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Second International Symposium and Exhibition on The Redevelopment of Manufactured Gas Plant Sites (MGP 2006)
April 4-6, 2006
Reading, UK
http://mgp2006.instep.ws/

EPA's NARPM 2006 Conference

May 2006
New Orleans, LA
http://www.epanarpm.org

5th National Monitoring Conference "Monitoring Networks: Connecting for Clean Water"

May 7-11, 2006

San Jose, CA

http://water.usgs.gov/wicp/acwi/monitoring/conference/2006/calendar_annct_06.pdf

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MODFLOW and More 2006: Managing Ground-Water Systems Conference

May 21-24, 2006

Golden, Colorado

http://www.mines.edu/igwmc/events/modflow2006/modflow2006.shtml

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Fifth International Battelle Conference on Remediation of Chlorinated and Recalcitrant Compounds

May 22-25, 2006

Monterey, CA

http://www.battelle.org/environment/er/conferences/chlorcon/default.stm

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Environmental Effects of Agricultural Practices: Remediation, Prevention, and Sustainability

June, 2006 (tentative)

Sacramento, CA

Conference on Mercury as a Global Pollutant

Madison, Wisconsin

August 6-11, 2006

www.mercury2006.org

RECENT DOCUMENTS, DATABASES, ETC.

These entries are arranged alphabetically. Thanks to TechDirect, Tech Trends, NRMRL News, the ETV Program, DOE, DoD and others for posting their latest documents. And remember, many of these are available in paper format in the Region 9 library. Use your local library.....

Assessment of Subsurface Chlorinated Solvent Contamination Using Tree Cores at the Front Street Site and a Former Dry Cleaning Facility at the Riverfront Superfund Site, New Haven, Missouri, 1999-2003
(USGS Scientific Investigations Report 2004-5049)
(2004, 41 pages)
http://water.usgs.gov/pubs/sir/2004/5049/pdf/complete.pdf

"Biodegradation of PCE and TCE in landfill leachate predicted from concentrations of molecular hydrogen: a case study."
Gonsoulin, Mary E., Barbara H. Wilson, and John T. Wilson.
Bioremediation 15:475-485.
http://www.taylorandfrancis.com

Characterization, Design, Construction, and Monitoring of Mitigation Wetlands
(ITRC WTLND-2)
(February 2005, 197 pages)
http://www.itrcweb.org/Documents/WTLND-2.pdf

Compilation of Available Data on Building Decontamination Alternatives

(EPA 600-R-05-036)
(March 2005, 196 pages)
http://www.epa.gov/ordnhsrc/pubs/reportBuildDecon052705.pdf

Demonstration of Aquafix and SAPS Passive Mine Water Treatment technologies at the Summittville Mine Site
(EPA 600-R-04-501)
(June 2004, 59 pages)
http://www.epa.gov/ORD/NRMRL/pubs/540r04501/540r04501.pdf

Environmental Management at Operating Outdoor Small Arms Firing Ranges
ITRC (SMART-2)
(February 2005, 125 pages)
http://www.itrcweb.org/Documents/SMART-2.pdf

Field Screening Method for Perchlorate in Water and Soil
(US Army Corps of Engineers ERDC/CRREL TR-04-8)
(April 2004, 26 pages)
http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/TR04-8.pdf

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GROUNDWATER CONTAMINATION:
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(EPA 542-R-05-002)
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Serious Scientists Gather 'Round.....

Here are 5 article titles from the recent Vol 39, No. 7 (2005) issue of ES&T.....do I detect a trend here??

1. Less for oceans and fisheries, more for tsunami warnings at NOAA
2. Department of the Interior budget drops
3. NSF cuts education, gets icebreakers
4. Winners and losers at DOE
5. President Bush cuts U.S. EPA budget

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the author. Thanks again to all of my information resources, which include EPA's OSRTI (formerly TIO), ORD (including NRMRL News) and Region 1's CEIT.

Thanks for reading it! Comments and suggestions are appreciated. If you wish to be added to or deleted from this list, please send me an email. (gill.michael@epa.gov)

Newsletter archives can be found on the EPA intranet site.....
http://intranet.epa.gov/ospintra/scienceportal/htm/hstlnews.htm
A number of environmental technology web resources can be found here.....
http://www.epa.gov/region09/waste/techlinks/

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